

## CLAIMS

1. A process of increasing the expression of TGF- $\beta_1$  from cells in a mammalian patient, which comprises administering to the patient an effective amount of stressed mammalian blood cells, said stressed cells having been extracorporeally  
5 subjected to at least one stressor selected from oxidative stress and ultraviolet radiation, and thereby alleviating in the patient the symptoms of a disorder associated with TGF- $\beta_1$  deficiency.

2. A process of treating ulcers in a mammalian patient to accelerate the healing thereof, which comprises administering to an ulcer - suffering patient an  
10 effective amount of stressed mammalian blood cells, said stressed cells having been extracorporeally subjected to at least one stressor selected from oxidative stress and ultraviolet radiation, and thereby accelerating the healing of the patient's ulcer.

3. The process of claim 2 wherein the stressed blood cells originate from the same patient.

15 4. The process of claim 3 wherein the stressed cells have been subjected to both oxidative stress and ultraviolet radiation simultaneously.

5. The process of claim 4 wherein the stressed mammalian blood cells have been additionally extracorporeally subjected to heat stress simultaneously with the subjection to both oxidative stress and ultraviolet radiation.

20 6. The process of claim 5 wherein the oxidative conditions comprise bubbling a gaseous mixture of medical grade oxygen and ozone through the blood, for a period of from about 0.5 minutes - 60 minutes.

7. The process of claim 6 wherein the gaseous mixture has an ozone content of from about 0.1 to about 100  $\mu\text{g/ml}$ .

8. The process of claim 7 wherein the UV stressor is UV-C radiation.

5 9. The process of claim 8 wherein the temperature stressor is a temperature in the range of from about 40 to about 55°C.

10 10. The process of claim 9 wherein the stressed mammalian blood cells comprise a volume of whole blood of from about 0.1 to about 400 mls.

11. A process of inhibiting ulcer formation in a mammalian patient at risk of said ulcer formation which comprises administering to said patient an effective amount of stressed mammalian blood cells, said stressed cells having been extracorporeally subjected to at least one stressor selected from oxidative stress and ultraviolet radiation, and thereby accelerating the healing of the patient's ulcer.

12. The process of claim 11, wherein the stressed blood cells originate from the same patient.

15 13. The process of claim 11, wherein the stressed blood cells have been subjected to both oxidative stress and ultraviolet radiation simultaneously.

14. The process of claim 11, wherein the stressed mammalian blood cells have been additionally extracorporeally subjected to heat stress simultaneously with the subsection of both oxidative stress and ultraviolet radiation.

15. The process of claim 11, wherein the oxidative conditions comprise bubbling a gaseous mixture of medical grade oxygen and ozone through the blood, for a period of from about 0.5 minutes to about 60 minutes.

5 16. The process of claim 15, wherein the gaseous mixture has an ozone content of from about 0.1 to about 100  $\mu\text{g/ml}$ .

17. The process of claim 11, wherein the UV stressor is UV-C radiation.

18. The process of claim 14, wherein the temperature stressor is a temperature in the range of from about 40 to about 55°C.

10 19. The process of claim 11, wherein the stressed mammalian blood cells comprise a volume of whole blood of from about 0.1 to about 400 mls.